

DRAFT

Little Indian Creek Conservation Area

Ten-Year Area Management Plan

FY 2016-2025



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OVERVIEW

- **Official Area Name:** Little Indian Creek Conservation Area, # 7837
- **Year of Initial Acquisition:** 1978
- **Acreage:** 3,939 acres
- **Counties:** Franklin, Washington
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Purpose:**
 - A. Strategic Direction**

Manage for wildlife, forest and aquatic resources and compatible recreational opportunities.
 - B. Desired Future Condition**

The desired future condition of Little Indian Creek Conservation Area (CA) is a healthy forest/woodland complex supporting aquatic resources and streams.
 - C. Federal Aid Statement**

N/A

GENERAL INFORMATION AND CONDITIONS

I. Special Considerations

- A. Priority Areas:** Meramec River Hills Priority Forest Landscape, Meramec River Watershed Audubon Important Bird Area
- B. Natural Areas:** None

II. Important Natural Features and Resources

- A. Species of Conservation Concern:** None observed.
- B. Caves:** None
- C. Springs:** Yes, records kept with the Missouri Department of Conservation (the Department) Natural History Biologist.
- D. Other:** Occurs in the East Meramec Oak Woodland/Forest Hills Land Type Association and the Courtois Oak-Pine Woodland/Forest Hills Land Type Association. The East Meramec Oak Woodland/Forest Hills Land Type Association consists of broad ridges and moderate slopes that give way to narrow ridges and steeper slopes near streams. Historically, oak woodland and forest with scattered glade/woodland complexes dominated. The Courtois Oak-Pine Woodland/Forest Hills Land Type Association consists of broad ridges and moderate slopes that grade into narrow ridges and steeper slopes near numerous stream valleys. Historically, pine, oak-pine and mixed-oak woodland and forest dominated the area (Nigh & Schroeder, 2002).

III. Existing Infrastructure

- 7 gravel parking lots (American with Disabilities Act (ADA) accessible)
- 3 gravel public access roads (~2.4 miles)
- 1 primitive campground (12 designated camp spots)
- 3 single privies (ADA accessible)
- 1 unstaffed shooting range with 25-, 50- and 100-yard target holders (ADA accessible)
- 1 shotgun range
- 1 12.1-mile double loop multiple-use trail (hike/bike/horse)
- 3 gravel service roads (~3.6 miles)
- 3 low-water slabs
- 2 foot bridges
- 6 road pipes
- 8 gates
- 1 pond dam
- 1 small fishing pond
- 14 wildlife watering holes (~1 acre)

IV. Area Restrictions or Limitations

A. Deed Restrictions or Ownership Considerations:

- Reservation of mining and mineral rights (Township 40N, Range 1W, E½, SW¼, Section 17; SE¼, Section 18, part of N½, NE¼, Section 19)
- Reservation of graveyard (Township 40N, Range 1W, NW¼, NE¼, Section 18)

B. Federal Interest: Federal funds may be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.

C. Easements:

- Easement over existing ridge road (Book 114, 275 in the records of Washington County)
- Easement granted to Leo P. Hawkins for ingress and egress over existing easement on ridge road (Book 207, page 838 in the records of Washington County)
- Drainage easement granted to State of Missouri (Book 114, page 275 in the records of Washington County)
- Power-line easement

D. Cultural Resources Findings: Yes, records kept with the Department Environmental Compliance Specialist. Managers should follow Best Management

Practices for Cultural Resources found in the Department Resource Policy Manual.

E. Hazards and Hazardous Materials: None observed.

F. Endangered Species: None observed.

G. Boundary Issues: None.

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Little Indian Creek CA contains approximately 3,808 acres of forest, woodland and glades and 96 acres of fields (Figure 4). The forest and woodland on Little Indian Creek CA is generally described as woodland, woodland/glade complex, upland forest and bottomland forest (Missouri Department of Conservation, 2012):

- 1) **Woodland:** Mixed oak woodlands occur on ridge tops, exposed slopes and protected slopes. Post oak woodlands occur mainly on ridges and exposed slopes. Pine oak woodlands occur mainly on ridges and exposed slopes in the southwest part of the area.
- 2) **Woodland/Glade Complex:** Glades and associated woodlands are mainly located on exposed slopes. An extensive complex of woodlands and glades is located along the eastern side of California Branch.
- 3) **Upland Forest:** The white oak forest type is the main upland forest type and occurs mainly on protected slopes. This forest type includes red oak and other oaks as well as hickory and other hardwoods.
- 4) **Bottomland Forest:** Riverfront forest is located along Little Indian Creek and includes ash, hackberry, sycamore, oak, walnut, box elder and other bottomland species. Mixed oak hickory forest is located along Mule Barn Hollow, Simmons Hollow and California Branch.

In 2002 and 2012, portions of the woodland glade complex along California Branch were burned by prescribed fire. In 2013, a portion of the woodland glade complex was burned by wildfire. Cedar was felled by chain saw on several glades in 2012. Sugar maple was treated with herbicide on a portion of Compartment 4 on the east side of the area in 2012; followed by a timber sale aimed at utilizing recently dead and dying white oak which was extensive in the compartment; and thinning crowded forests and woodlands. Other forest compartments have had little active management during the Department's ownership of the area.

Fields include tree plantings, old fields reverting to forest cover, warm-season grass, limited food plots and limited old fields maintained in a state of early succession. The Department has been monitoring and eradicating feral hogs since they began causing damage at Little Indian Creek CA in 2009. The Department has also partnered with several surrounding landowners who have cooperated in feral hog reduction.

Challenges and Opportunities:

- 1) Maintain healthy forests and woodlands.
- 2) Maintain limited open-land habitat.
- 3) Protect terrestrial resources from feral hogs.

Management Objective 1: Maintain healthy forests, woodlands and glades.

Strategy 1: Monitor forests, woodlands and glades for invasive exotic vegetation, diseases and insects; control, as needed. (Forestry)

Strategy 2: In accordance with Forestry Division's forest compartment inventory schedule, conduct forest/woodland inventories, formulate prescriptions (e.g., harvesting, non-commercial thinning, prescribed fire, etc.), and carry out prescriptions to maintain forests and woodlands in a healthy, sustainable and wildlife-friendly condition. (Forestry)

Strategy 3: Restore and maintain glades by removing undesirable trees and/or conducting prescribed fire, as time allows. (Forestry)

Strategy 4: During forest management activities follow best management practices in the *Missouri Watershed Protection Practice Recommended Practices for Missouri Forests: 2014 Management Guidelines for Maintaining Forested Watersheds to Protect Streams* (Missouri Department of Conservation, 2014) guidelines and *Watershed and Stream Management Guidelines for Lands and Waters Managed by Missouri Department of Conservation* (Missouri Department of Conservation, 2009). (Forestry)

Management Objective 2: Maintain limited open-land habitat.

Strategy 1: Monitor open lands for invasive exotic vegetation, diseases and insects. Develop strategies to eliminate or reduce infestations. (Forestry)

Strategy 2: Small warm-season grass fields may be maintained by mechanical, fire or chemical methods. (Forestry)

Strategy 3: Provide limited food plots and early successional old field habitat by mechanical, fire or chemical methods, as needed. (Forestry)

Strategy 4: Maintain tree plantings until established. (Forestry)

Strategy 5: Allow the majority of open lands to reforest. (Forestry)

Management Objective 3: Protect terrestrial and aquatic resources from feral hogs.

Strategy 1: Monitor area for feral hogs. (Forestry)

Strategy 2: Report feral hog issues to the Regional Feral Hog Coordinator/Wildlife Damage Biologist. (Forestry)

Strategy 3: Work with the Regional Feral Hog Coordinator/Wildlife Damage Biologist and Feral Hog Task Force to eliminate feral hogs from the area. (Forestry)

VI. Aquatic Resource Management Considerations

Little Indian Creek CA contains several miles of headwater streams with high gradients, long riffles and short pools. The majority of streams have intermittent surface flows.

The Department owns only a small portion of the watershed. Subsequently, the streams are subject to degradation from past and current in-stream practices and incompatible land uses in the watershed. These contribute a high gravel bedload, which limits in-stream habitat available for aquatic organisms.

Challenges and Opportunities:

- 1) Maintain or improve aquatic systems.

Management Objective 1: Maintain or improve stream function, including riparian corridor areas and the supply and transport of sediments and gravel.

Strategy 1: Maintain or improve terrestrial natural communities in the riparian areas of streams to the extent possible (see Terrestrial Resource Management Considerations) throughout the duration of this plan. (Forestry)

Strategy 2: Assess the integrity of stream channels and drainage ways, and the need to implement stabilization projects or repair stream-crossing structures. (Fisheries, Design and Development)

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) Provide hunting opportunities.
- 2) Provide target shooting opportunities.
- 3) Provide horseback riding, hiking and biking opportunities.
- 4) Provide camping opportunities in a safe and enjoyable family-friendly atmosphere.

Management Objective 1: Provide hunting opportunities.

Strategy 1: Conduct long-term and annual management activities that will provide habitat for a diversity of wildlife species. (Forestry)

Management Objective 2: Provide target shooting opportunities.

Strategy 1: Maintain unstaffed shooting range in a safe and accessible condition that invites public use. (Forestry)

Strategy 2: Inspect shooting range biannually and provide recommendations to the Area Manager. (Outreach and Education)

Management Objective 3: Provide horseback riding, hiking and biking opportunities.

Strategy 1: Maintain multiple-use trails in a safe and accessible condition that invites public use. (Forestry)

Strategy 2: Modify multiple-use trails, as needed (and as approved), to serve the public's needs or reduce trail maintenance, with no net loss of trail length. (Forestry)

Strategy 3: Expand the area where horse trailers may park. Investigate options for where expanded parking would work best. (Design and Development)

Management Objective 4: Provide camping opportunities in a safe and enjoyable family-friendly atmosphere.

Strategy 1: Explore the feasibility of allowing open camping at designated sites in the primitive campground from Sept. 15 through May 15 to support hunting opportunities and to discourage warm-weather related unlawful or prohibited behavior. (Forestry)

Strategy 2: Install a gate at the campground entrance to support Strategy 1. (Forestry)

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Maintain area infrastructure.
- 2) Acquisition of land.

Management Objective 1: Maintain area infrastructure.

Strategy 1: Maintain area infrastructure in accordance with Department guidelines. (Forestry)

Management Objective 2: Encourage efficient utilization of small parking lot and discourage improper parking along road by Little Indian Creek.

APPENDICES

Area Background:

Little Indian Creek CA is in Franklin and Washington Counties, about 8 miles south of St. Clair. The Department acquired the majority of the area in 1978 and manages it for forest, woodland, glade and stream habitat; and to provide the public opportunities for hunting, shooting, horseback riding, hiking, bicycling and camping.

The 3,939-acre area, named for the stream which runs through a narrow part of the area, is located in the Indian Creek Watershed of the Meramec River Basin. The area is mainly forested. Open areas include tree plantings, old fields reverting to forest cover, a small warm-season grass field, limited food plots, limited old fields maintained in a state of early succession, gravel bars and public use areas.

The area is open to the public from 4 a.m. to 10 p.m. daily. Special facilities include seven gravel parking lots, three gravel public access roads, a primitive campground with 12 designated camp spots, three single privies, an unstaffed shooting range, a shotgun range and a 12-mile double loop multiple-use trail.

Current Land and Water Types:

| Land/Water Type | Acres | Feet | % of Area |
|--------------------------|--------------|--------|------------|
| Woodland | 1,867 | | 48 |
| Upland Forest | 1,262 | | 32 |
| Woodland/Glade Complex | 389 | | 10 |
| Bottomland Forest | 290 | | 7 |
| Old Fields | 83 | | 2 |
| Developed | 33 | | 1 |
| Warm-Season Grass Fields | 13 | | <1 |
| Impounded Water | 2 | | <1 |
| Total | 3,939 | | 100 |
| Stream Frontage | | 82,368 | |

References:

Missouri Department of Conservation. (2009). *Watershed and stream management guidelines for lands and waters managed by Missouri Department of Conservation*. Jefferson City, Missouri: Missouri Department of Conservation.

Missouri Department of Conservation. (2012). Geographic Information Systems layer. Jefferson City, Missouri: Missouri Department of Conservation.

Missouri Department of Conservation. (2014). *Missouri watershed protection practice recommended practices for Missouri forests: 2014 management guidelines for maintaining forested watersheds to protect streams*. Jefferson City, Missouri: Conservation Commission of the State of Missouri.

Nigh, T. A., & Schroeder, W. A. (2002). *Atlas of Missouri ecoregions*. Jefferson City, Missouri: Missouri Department of Conservation.

Maps:

Figure 1: Area Map

Figure 2: Aerial Map

Figure 3: Topographic Map

Figure 4: Current Vegetation Map

Figure 1: Area Map

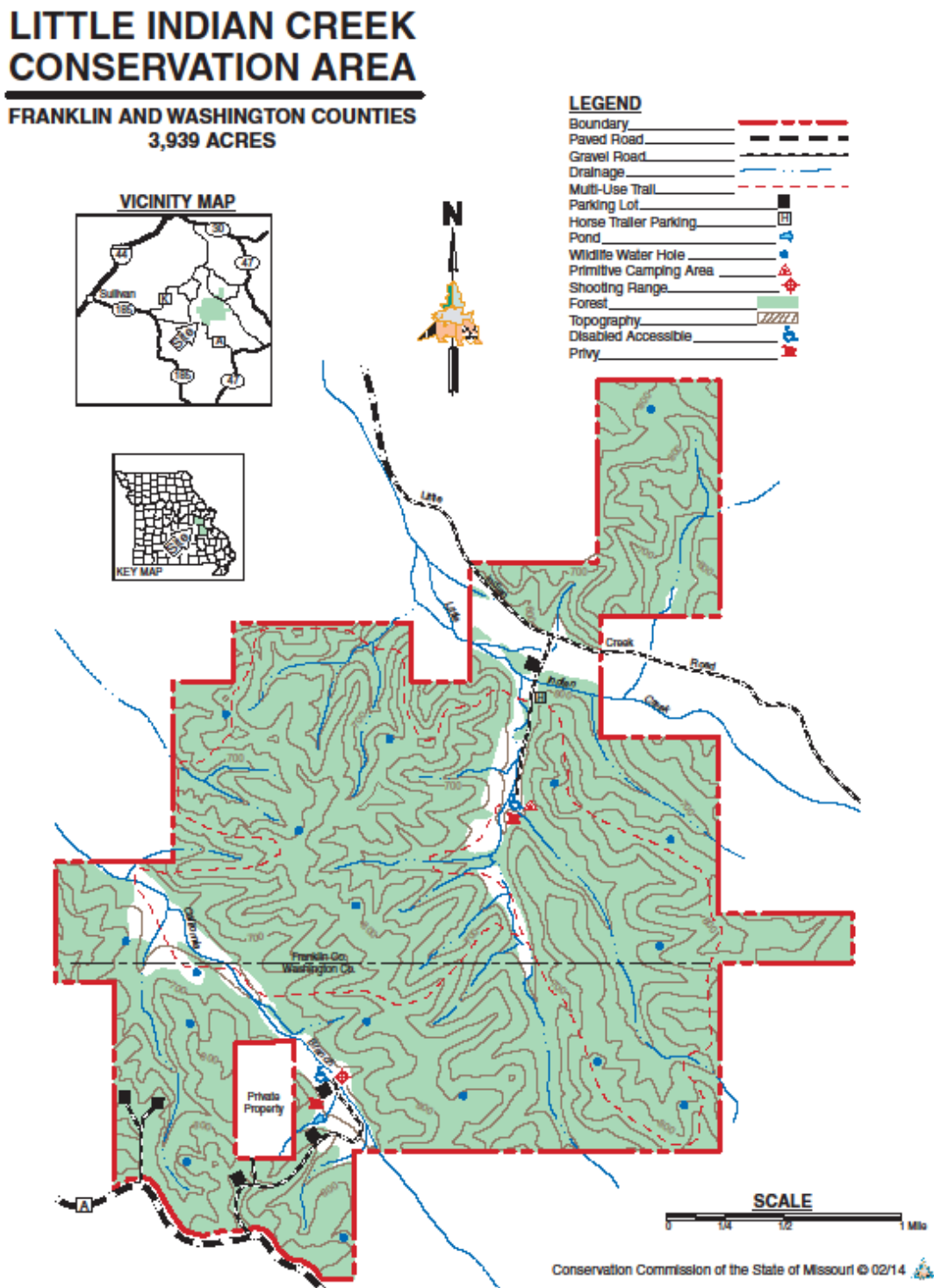


Figure 2: Aerial Map

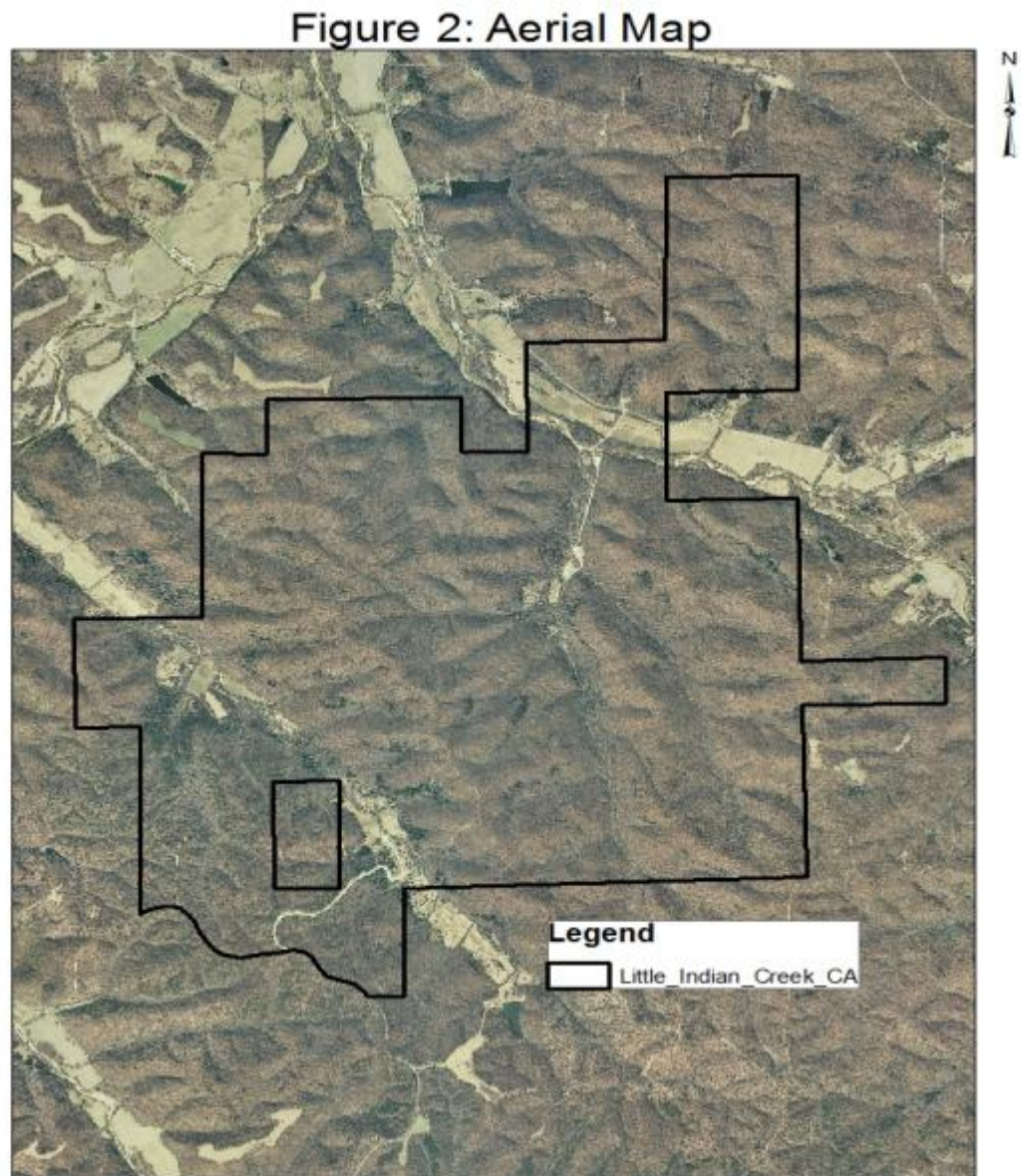


Figure 3: Topographic Map

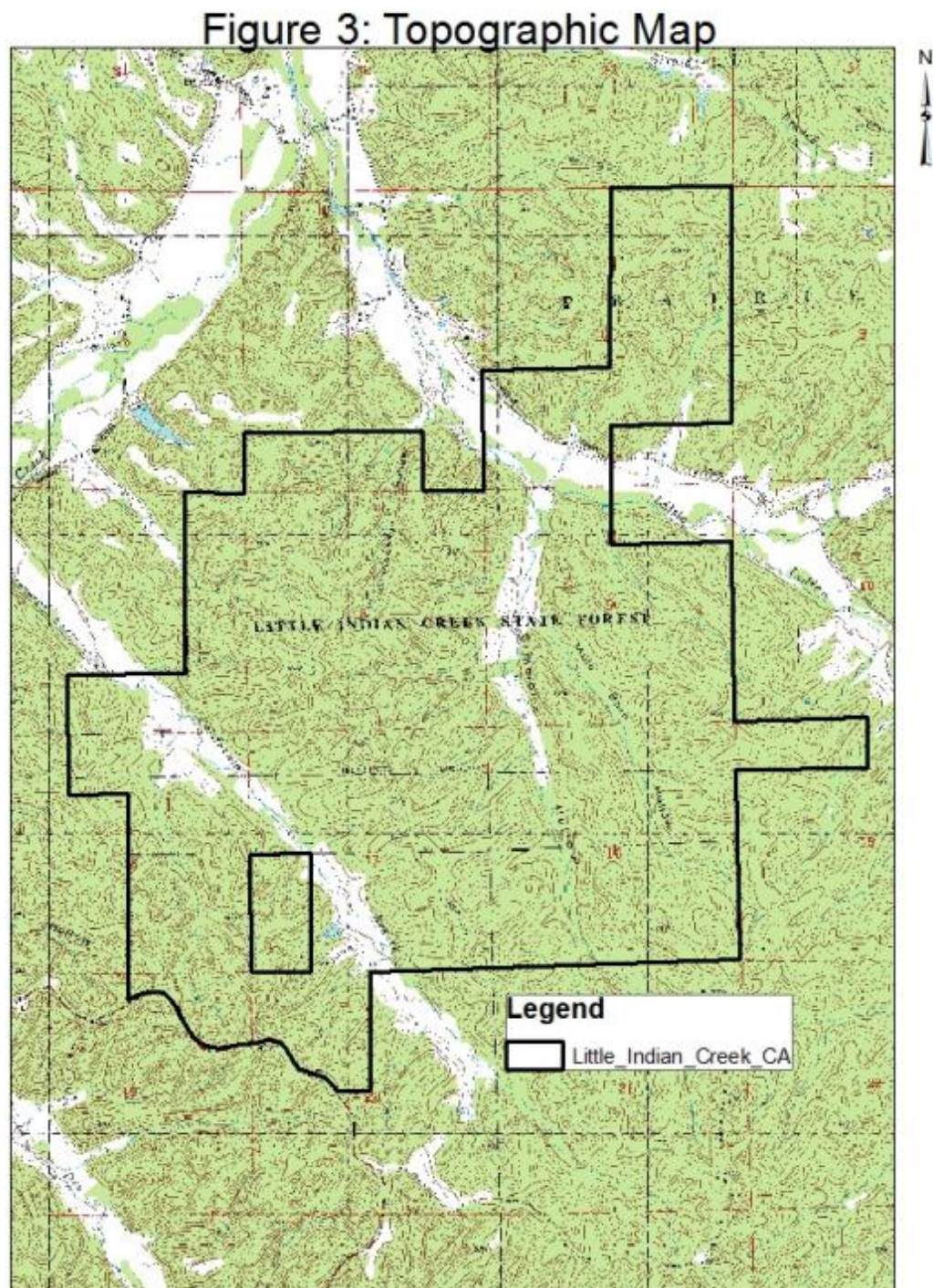
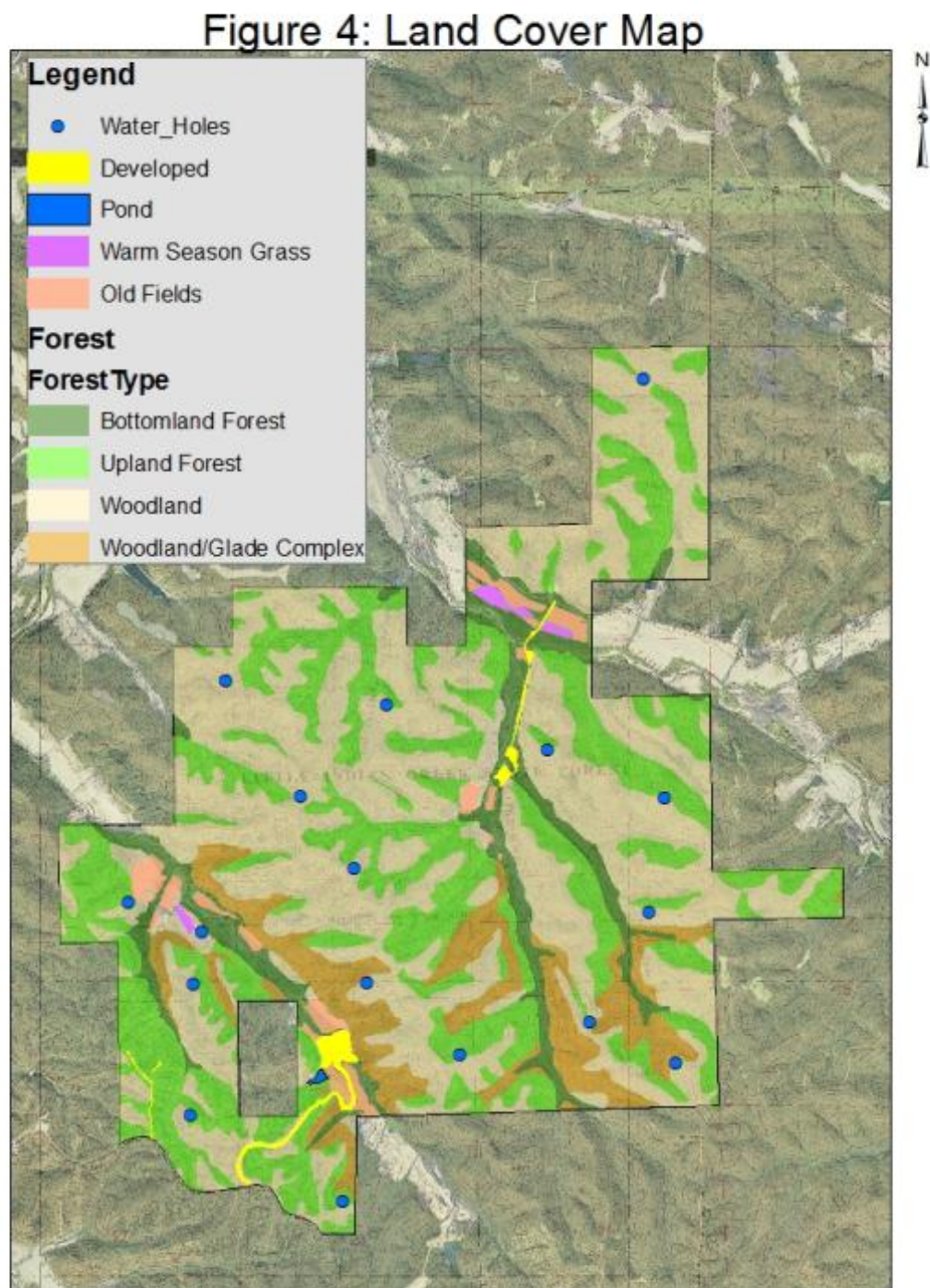


Figure 4: Land Cover Map



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